CLAIMS

1. A substance, or a derivative thereof, having an ability to bind to a CD61 protein and an inhibitory effect on inflammatory cytokine production.

2. The substance or derivative of claim 1, wherein the substance is a protein.

3. The substance or derivative of claim 1, wherein the substance is an antibody.

4. The substance or derivative of claim 1, 2, or 3, wherein the inflammatory cytokine is any one of IFN-γ, TNFα, IL-1, and IL-6.

5. The substance or derivative of claim 1, 2, 3, or 4, having an IL-10 production-inducing effect.

6. An inhibitor of inflammatory cytokine production comprising as an effective ingredient the substance or derivative of any one of claims 1 to 5.

7. An isolated DNA of any one of the following (a) to (d):
(a) a DNA of any one of SEQ ID NOs: 9 to 16;
(b) a DNA encoding the amino acid sequence of any one of SEQ ID NOs: 1 to 8;
(c) a DNA which hybridizes under stringent conditions with a DNA of any one of SEQ ID NOs: 9 to 16; and
(d) a DNA encoding an amino acid sequence with a deletion, addition, insertion and/or substitution of one or more amino acids in the amino acid sequence of SEQ ID NOs: 1 to 8.

8. A vector carrying the DNA of claim 7.

9. A transformant carrying the DNA of claim 7 or the vector of claim 8.

10. An anti-CD61 antibody, wherein the heavy chain polypeptide is a polypeptide of the following (a) or (b):
(a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 4; or
(b) a polypeptide comprising an amino acid sequence with a deletion, addition, insertion and/or substitution of one or more amino acids in the amino acid sequence of SEQ ID NO:

4 and wherein the amino acid is functionally equivalent to the amino acid sequence of SEQ ID NO: 4.

11. An anti-CD61 antibody comprising the amino acid sequence of the following (a) or (b) as an amino acid sequence of a CDR (complementarity determining region) of a heavy chain polypeptide:

(a) an amino acid sequence of any one of SEQ ID NOs: 1 to 3; or

(b) an amino acid sequence with a deletion, addition, insertion and/or substitution of one or more amino acids in the amino acid sequence of SEQ ID NOs: 1 to 3 and which is functionally equivalent as a CDR (complementarity determining region) to the amino acid sequence of any one of SEQ ID NOs: 1 to 3.

12. An anti-CD61 antibody, wherein a light chain polypeptide is a polypeptide of the following (a) or (b):

(a) a polypeptide comprising the amino acid sequence of SEQ ID NO: 8; or

(b) a polypeptide comprising an amino acid sequence with a deletion, addition, insertion and/or substitution of one or more amino acids in the amino acid sequence of SEQ ID NO: 8 and wherein the amino acid is functionally equivalent to the amino acid sequence of SEQ ID NO: 8.

13. An anti-CD61 antibody comprising the amino acid sequence of the following (a) or (b) as an amino acid sequence of a CDR (complementarity determining region) of a light chain polypeptide:

(a) an amino acid sequence of any one of SEQ ID NOs: 5 to 7; or

(b) an amino acid sequence with a deletion, addition, insertion and/or substitution of one or more amino acids in the amino acid sequence of SEQ ID NOs: 5 to 7 and which is functionally equivalent as a CDR (complementarity determining region) to the amino acid sequence of any one of SEQ ID NOs: 5 to 7.

14. A pharmaceutical for preventing or treating an inflammatory disease, wherein the pharmaceutical comprises the inhibitor of inflammatory cytokine production of claim 6 or the anti-CD61 antibody of any one of claims 10 to 13.

15. A pharmaceutical for preventing or treating hypercytokinemia, wherein the pharmaceutical comprises the inhibitor of inflammatory cytokine production of claim 6 or

the anti-CD61 antibody of any one of claims 10 to 13.

16. A method for inhibiting inflammatory cytokine production using the substance or derivative of any one of claims 1 to 5 or the anti-CD61 antibody of any one of claims 10 to 13.

17. A method for judging the effectiveness of the pharmaceutical of claim 14 or 15 in treating an inflammatory disease or hypercytokinemia, wherein the method comprises the step of contacting a test sample with an anti-CD61 antibody.

18. A kit for judging the effectiveness of the pharmaceutical of claim 14 or 15 in treating an inflammatory disease or hypercytokinemia.

19. A method of screening for a substance having an ability to bind to a CD61 protein and an inhibitory effect on inflammatory cytokine production, wherein the method comprises the steps of:

(a) contacting an inducer of cytokine production and a test substance with a CD61-expressing cell; and

(b) measuring the inflammatory cytokine level, comparing it with that of a control contacted with only the inducer of cytokine production, and selecting a test substance that reduced the cytokine level produced.